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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,454	08/26/2003	David B. Sarraf	H1799-00221	5751

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EXAMINER

PATEL, NIHIR B

ART UNIT	PAPER NUMBER
3743	

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/649,454	SARRAF ET AL.	
	Examiner	Art Unit	
	Nihir Patel	3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on June 25th, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Nelson US Patent No. 5,339,214. Referring to claim 1, Nelson discloses a multiple-fan microprocessor cooling through a finned heat pipe that comprises a heat transfer block 42 (see figures 1 through 3) including at least two clip channels (see figure 2); and a heat pipe 38 (see figures 1 through 3) coupled to the heat transfer block 42 by a clip 46 (see figures 2 and 3) that is received in the at least two clip channels (see figure 2).

Referring to claim 2, Nelson discloses an apparatus wherein the clip 46 includes a main surface and two side surfaces disposed substantially orthogonal to the main surface (see figure 2).

Referring to claim 3, Nelson discloses an apparatus wherein the heat transfer block 42 includes at least one clip channel disposed therein for receiving the clip 46 (see figure 2).

Referring to claim 5, Nelson discloses an apparatus wherein the heat transfer block 42 includes at least one heat pipe channel 44 (see figure 2) disposed therein for receiving the heat pipe 38 (see figure 2).

Referring to claim 11, Nelson discloses an apparatus wherein the heat transfer block includes at least one clip channel disposed therein for receiving the clip 46, such

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that the two side surfaces of the clip are disposed in the at least one clip channel (see figure 2).

Referring to claims 7, 8, 9, 10, 12, 13, 14, 15, 17, 18, 19 and 20, Nelson discloses an apparatus wherein the clip is coupled to the at least two clip channels by friction (see figure 2). Since the applicant has not established any criticality of using the different types of coupling methods in the specification, the examiner believes that coupling methods like soldering, epoxy, friction fastener are different types of method used to achieve the same goal whether to couple the heat pipe to the heat pipe channel or to couple the clip to the clip channels therefore the examiner has applied a 102 rejection to the claims listed above.

Referring to claim 16, Nelson discloses an apparatus wherein the heat transfer block 42 includes at least two clip channels disposed therein for receiving the clip 46, such that the two side surfaces of the clip are disposed in the at least two clip channels (see figure 2).

Referring to claim 21, Nelson discloses an apparatus wherein the clip includes a top surface and bottom surface with at least two tabs extending orthogonally from the bottom surface (see figure 2).

Referring to claim 22, Nelson discloses an apparatus wherein the heat transfer block 42 includes at least two channels for receiving the at least two tabs in the clip 46 (see figure 2).

Referring to claim 23, Nelson discloses an apparatus wherein the clip 46 extends substantially across an entire top surface of the heat transfer block (see figure 2).

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Referring to claim 24, Nelson discloses a multiple fn microprocessor cooling through a finned heat pipe that comprises at least one electronic component 30 (see figures 1 through 3); a heat transfer block 42 (see figures 1 through 3) disposed adjacent to the at least one electronic component 30; and a heat pipe 38 (see figures 1 through 3) coupled to the heat transfer block 42 by a clip 46 (see figures 1 through 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson US Patent No. 5,339,214 in view of McMahan et al. US Patent No. 6,359,780. Referring to claim 6, Nelson discloses the applicant's invention as claimed with the exception of providing a heat pipe that comprises a pinch-off portion that is disposed in the heat pipe channel.

McMahan discloses an apparatus and method for cooling a heat generating component in a computer that does provide a heat pipe that comprises a pinch-off portion that is disposed in the heat pipe channel (see figure 4). Therefore it would be obvious to modify Nelson's invention by providing a heat pipe that comprises a pinch-off portion that is disposed in the heat pipe channel in order to improve the heat transfer rate.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Nihir Patel whose telephone number is (703) 306-3463. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful the examiner supervisor Henry Bennett can be reached at (703) 308-0101.

NP
July 21st, 2004



Henry Bennett
Supervisory Patent Examiner
Group 3700